

Appl. No. : 10/762,209  
Filed : January 20, 2004

## AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application. Applicants have amended Claims 1 and 29 as follows:

1. (Currently Amended) A hand-held electronic device comprising:

a first unit;

a second unit, wherein at least one of the first and second units comprises a display, and wherein at least one of the first and second units comprises an information input device;

a hinge device interconnecting the first and second units, the hinge device comprising:

a housing enclosing at least one component of the hinge device and being separate from ~~movable relative to~~ both the first and second units;

a first rotating member coupled to the first unit and rotatable about a first rotation axis with respect to the housing;

a second rotating member coupled to the second unit and rotatable about a second rotation axis with respect to the housing;

a first linearly moving member cooperating with the first rotating member and linearly movable with respect to the housing;

a second linearly moving member cooperating with the second rotating member and linearly movable with respect to the housing;

a first resilient member urging the first linearly moving member against the first rotating member; and

a second resilient member urging the second linearly moving member against the second rotating member.

2. (Previously Presented) The device as claimed in claim 1, wherein the first and second rotating members are engagedly rotated.

3. (Previously Presented) The device as claimed in claim 1, wherein the first and second rotating members comprise mutually engaging gears so that the rotating members can rotate together with each other.

Appl. No. : 10/762,209  
Filed : January 20, 2004

4. (Previously Presented) The device as claimed in claim 1, wherein the first and second linearly moving members are independently moved.

5. (Previously Presented) The device as claimed in claim 1, wherein the first and second linearly moving members are integrated together.

6. (Previously Presented) The device as claimed in claim 1, wherein one of the first rotating member and the first linearly moving member comprises a first cam portion and the other comprises a first cam follower portion cooperating with the first cam portion, and one of the second rotating member and the second linearly moving member comprises a second cam portion and the other comprises a second cam follower portion cooperating with the second cam portion.

7. (Previously Presented) The device as claimed in claim 6, wherein each of the first and second cam portions comprises an upward slanting surface and a downward slanting surface.

8. (Previously Presented) The device as claimed in claim 7, wherein the cam portion comprises a first insertion groove into which the cam follower portion can be inserted, a horizontal surface, and a second insertion groove into which the cam follower portion can be inserted, and wherein the first insertion groove is formed about an end of the downward slanting surface.

9. (Previously Presented) The device as claimed in claim 1, wherein the first and second rotating members are independently rotated.

10. (Previously Presented) The device as claimed in claim 6, wherein the first and second linearly moving members are interdependently moved.

11. (Previously Presented) The device as claimed in claim 6, wherein the first cam portion comprises a first cam surface, which comprises a first fixing groove into which the first cam follower portion can be inserted; wherein the second cam portion comprises a second cam surface, which comprises a second fixing groove into which the second cam follower portion can be inserted; wherein when the first cam follower portion is inserted into the first fixing groove, the second rotating member can rotate while the first rotating member is maintained in a stationary state; and wherein when the second cam

Appl. No. : 10/762,209  
Filed : January 20, 2004

follower portion is inserted into the second fixing groove, the first rotating member can rotate while the second rotating member is maintained in a stationary state.

12. (Previously Presented) The device as claimed in claim 11, wherein the first cam surface further comprises a horizontal surface contiguous to the first fixing groove, and stoppers for preventing movement of the first cam follower portion from the stopper in one direction.

13. (Previously Presented) The device as claimed in claim 12, wherein the first cam surface further comprises at least one intermediate stopper groove in the horizontal surface, and wherein the intermediate stopper groove is shallower than the first and second fixing grooves.

14. (Previously Presented) The device as claimed in claim 12, wherein the second cam surface further comprises an upward slanting surface, a horizontal surface, and a stopper for preventing movement of the second cam follower portion from the stopper in one direction.

15. (Previously Presented) The device as claimed in claim 12, wherein the second cam surface comprises an upward slanting surface and a downward slanting surface.

16. (Previously Presented) The device as claimed in claim 1, wherein one of the first rotating member and the first linearly moving member comprises a first protrusion and the other comprises a groove into which the first protrusion can be inserted, and one of the second rotating member and the second linearly moving member comprises a second protrusion and the other comprises a second groove into which the second protrusion can be inserted.

17. (Previously Presented) The device as claimed in claim 16, wherein the member provided with the first groove is formed with a track for guiding movement of the first protrusion therealong, and the member provided with the second groove is formed with a track for guiding movement of the second protrusion therealong.

18. (Previously Presented) The device as claimed in claim 16, wherein the first and second rotating members are engagedly rotated.

Appl. No. : 10/762,209  
Filed : January 20, 2004

19. (Previously Presented) The device as claimed in claim 16, wherein the first and second linearly moving members are engagedly moved.

20. (Previously Presented) The device as claimed in claim 1, wherein the first and second linearly moving members are provided with through-holes, the first and second rotating members comprise extension rods extending in the first and second rotation axes, respectively, and the first and second linearly moving members and the first and second resilient members are fitted around the extension rods.

21. (Previously Presented) The device as claimed in claim 1, wherein the housing comprises passages through which a circuit wire connecting between the first and second units passes.

22. (Previously Presented) The device as claimed in claim 1, wherein the first and second rotating members are connected to the first and second units at one end of the housing, and the other end of the housing is provided with holes through which a circuit wire passes.

23. (Previously Presented) The device of Claim 1, wherein the hand-held electronic device comprises one of a wireless communication device and a hand-held computer.

24. (Previously Presented) The device of Claim 1, wherein the housing encloses at least part of the first linearly moving member and at least part of the second linearly moving member.

25. (Previously Presented) The device of Claim 1, wherein the housing encloses at least part of the first rotating member and at least part of the second rotating member.

26. (Previously Presented) The device of Claim 1, wherein the first and second rotation axes extend side-by-side and substantially parallel.

27. (Previously Presented) The device of Claim 1, wherein the first and second linearly moving members are arranged side-by-side.

28. (Previously Presented) The device of Claim 1, wherein the first and second rotating members are arranged side-by-side.

29. (Currently Amended) A hand-held electronic device comprising:

Appl. No. : 10/762,209  
Filed : January 20, 2004

a first unit;

a second unit, wherein at least one of the first and second units comprises a display, and wherein at least one of the first and second units comprises an information input device;

a hinge device interconnecting the first and second units such that the first and second units can rotate relative to the hinge device, the hinge device comprising:

a housing enclosing at least one component of the hinge device, wherein the housing is not a portion of the first unit or the second unit, wherein the housing is located between the first and second units;

a first rotating member coupled to the first unit and rotatable about a first rotation axis with respect to the housing;

a second rotating member coupled to the second unit and rotatable about a second rotation axis with respect to the housing;

a first linearly moving member cooperating with the first rotating member and linearly movable with respect to the housing;

a second linearly moving member cooperating with the second rotating member and linearly movable with respect to the housing;

a first resilient member urging the first linearly moving member against the first rotating member; and

a second resilient member urging the second linearly moving member against the second rotating member.

30. (Previously Presented) The device of Claim 29, wherein the first and second rotation axes extend side-by-side and substantially parallel.

31. (Previously Presented) The device of Claim 29, wherein the housing is movable relative to both the first and second units.

32. (Previously Presented) The device of Claim 29, wherein the housing encloses at least part of the first linearly moving member and at least part of the second linearly moving member.

33. (Previously Presented) A hand-held electronic device comprising:  
a first unit;

Appl. No. : 10/762,209  
Filed : January 20, 2004

a second unit, wherein at least one of the first and second units comprises a display, and wherein at least one of the first and second units comprises an information input device;

a hinge device interconnecting the first and second units, such that the first and second units can rotate relative to the hinge device, the hinge device comprising:

    a housing;

    a first rotating member coupled to the first unit and rotatable about a first rotation axis with respect to the housing;

    a second rotating member coupled to the second unit and rotatable about a second rotation axis with respect to the housing;

    a first linearly moving member cooperating with the first rotating member and linearly movable with respect to the housing;

    a second linearly moving member cooperating with the second rotating member and linearly movable with respect to the housing;

    a first resilient member urging the first linearly moving member against the first rotating member; and

    a second resilient member urging the second linearly moving member against the second rotating member;

    wherein the first and second rotation axes extend side-by-side and substantially parallel.

34. (Previously Presented) The device of Claim 33, wherein the housing is movable relative to both the first and second units.

35. (Previously Presented) The device of Claim 33, wherein the first and second linearly moving members are arranged side-by-side.

36. (Previously Presented) The device of Claim 33, wherein the first and second rotating members are arranged side-by-side.

Appl. No. : 10/762,209  
Filed : January 20, 2004

## SUMMARY OF INTERVIEW

Applicants thank Examiner Jackson for the courtesy extended in the telephonic interview on April 11, 2006 with Applicants' Representative, Mincheol Kim.

### Exhibits and/or Demonstrations

None.

### Identification of Claims Discussed

Claims 1 and 29.

### Identification of Prior Art Discussed

U.S. Patent No. 6,115,886 to Fujita was discussed.

### Proposed Amendments

Various claim language was proposed to clarify that the housing of the hinge is separate from the first and second unit, or the housing does not refer to a portion of the first or the second unit.

### Principal Arguments and Other Matters

The interview participants discussed whether Fujita teach the claimed housing.

### Results of Interview

No agreement was reached as to specific claim language that overcomes Fujita. However, the Examiner agreed that Fujita does not teach a housing of a hinge device that is separate from the first and second units and is not a portion of the first or second unit.